What is claimed is:

1. An annular prosthesis for a heart valve comprising a chain having a plurality of links.

2. The annular prosthesis of Claim 1, wherein the chain is able to generate a saddle-shaped geometry and deform three-dimensionally, while retaining an approximately constant three-dimensional perimeter.

3. The annular prosthesis of Claim 2, wherein the chain has a saddle height to commissural diameter ratio in the range from approximately 0 to approximately 1/3.

4. The annular prosthesis of Claim 1, wherein the chain is able to retaining an approximately constant three-dimensional perimeter, with a maximum variation in perimeter of less than approximately 10%.

5. The annular prosthesis of Claim 4, wherein the maximum variation in perimeter is ~~less than approximately 3%.~~

6. The annular prosthesis of Claim 1, wherein the chain has the ability to maintain a normal chordal force distribution as its bending is dominated by its mechanical environment.

7. The annular prosthesis of Claim 1, the chain selected from the group consisting of a multilink chain, a solid link chain, and a scaled chain.

8. The annular prosthesis of Claim 1, the chain having at least a portion covered with a shielding layer of a flexible, biocompatible polymer.

9. The annular prosthesis of Claim 1, the chain having at least a portion covered with a suturing layer providing a suitable material for suturing or otherwise attaching the chain to annulus tissue and promoting tissue growth therein.

10. The annular prosthesis of Claim 1,wherein the links have a uniform shape.

11. The annular prosthesis of Claim 1, wherein the chain comprises a delivery system.

12. The annular prosthesis of Claim 11, the delivery system comprising the release of a chemical agent from within a link.

13. An annuloplasty ring for a heart valve comprising a chain having a plurality of links.

14. The annuloplasty ring of Claim 13, wherein the chain is able to generate a saddle-shaped geometry and deform three-dimensionally, while retaining an approximately constant three-dimensional perimeter.

15. The annuloplasty ring of Claim 14, wherein the chain has a saddle height to commissural diameter ratio in the range from approximately 0 to approximately 1/3.

16. The annuloplasty ring of Claim 12, wherein the chain is able to retaining an approximately constant three-dimensional perimeter, with a maximum variation in perimeter of less than approximately 10%.

17. The annuloplasty ring of Claim 16, wherein the maximum variation in perimeter is less than approximately 3%.

18. The annuloplasty ring of Claim 12, wherein the chain has the ability to maintain a normal chordal force distribution as its bending is dominated by its mechanical environment.

19. The annuloplasty ring of Claim 12, the chain selected from the group consisting of a multilink chain, a solid link chain, and a scaled chain.

20. The annuloplasty ring of Claim 12, the chain having at least a portion covered with a shielding layer of a flexible, biocompatible polymer.

21. ~~The annuloplasty ring of Claim 12, the chain having at least a portion covered with a~~ suturing layer providing a suitable material for suturing or otherwise attaching the chain to annulus tissue and promoting tissue growth therein.

22. The annuloplasty ring of Claim 12,wherein the links have a uniform shape.

23. The annuloplasty ring of Claim 12, wherein the chain comprises a delivery system.

24. The annuloplasty ring of Claim 23, the delivery system comprising the release of a chemical agent from within a link.

25 A method of repairing a heart valve annulus comprising implanting an annuloplasty chain.

26. The method of repairing a heart valve annulus according to Claim 25, comprising implanting an annuloplasty chain in a minimally invasive procedure.

27. The method of repairing a heart valve annulus according to Claim 25 comprising implanting an annuloplasty chain in a minimally invasive procedure with a beating heart.

28. The method of repairing a heart valve annulus according to Claim 25, wherein the chain is able to generate a saddle-shaped geometry and deform three-dimensionally, while retaining an approximately constant three-dimensional perimeter.

29. The method of repairing a heart valve annulus according to Claim 28, wherein the chain has a saddle height to commissural diameter ratio in the range from approximately 0 to approximately 1/3.

30. The method of repairing a heart valve annulus according to Claim 25, wherein the chain is able to retaining an approximately constant three-dimensional perimeter, with a maximum variation in perimeter of less than approximately 10%.

31. The method of repairing a heart valve annulus according to Claim 30, wherein the maximum variation in perimeter is less than approximately 3%.

32. The method of repairing a heart valve annulus according to Claim 25, wherein the chain has the ability to maintain a normal chordal force distribution as its bending is dominated by its mechanical environment.

33. The method of repairing a heart valve annulus according to Claim 25, the chain selected from the group consisting of a multilink chain, a solid link chain, and a scaled chain.

34. The method of repairing a heart valve annulus according to Claim 25, the chain having at least a portion covered with a shielding layer of a flexible, biocompatible polymer.

35. The method of repairing a heart valve annulus according to Claim 25, the chain having at least a portion covered with a suturing layer providing a suitable material for suturing or ~~otherwise attaching the chain to annulus tissue and promoting tissue growth therein.~~

36. The method of repairing a heart valve annulus according to Claim 25,wherein the links have a uniform shape.

37. The method of repairing a heart valve annulus according to Claim 25, wherein the chain comprises a delivery system.

38. The method of repairing a heart valve annulus according to Claim 37, the delivery system comprising the release of a chemical agent from within a link.